



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Seed Research

Division of Agrigenetics

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS OF THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COMMON WHEAT

'Citation'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 14th day of January in the year of our Lord one thousand nine hundred and eighty-two.

Attest:

James H. Lane
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

John R. Block
Secretary of Agriculture



UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
PLANT VARIETY PROTECTION OFFICE
NATIONAL AGRICULTURAL LIBRARY
BELTSVILLE, MARYLAND 20706

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY 4685		1b. VARIETY NAME Citation		FOR OFFICIAL USE ONLY	
				PV NUMBER 8100074	
2. KIND NAME Common wheat Hard red winter		3. GENUS AND SPECIES NAME Triticum aestivum		FILING DATE 3/16/81	TIME 2:00 P.M.
4. FAMILY NAME (BOTANICAL) Graminaeae		5. DATE OF DETERMINATION 1976		FEE RECEIVED \$ 500.00 \$ 250.00 \$	DATE 3/16/81 10/23/81
6. NAME OF APPLICANT(S) Seed Research Division of Agrigenetics		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Route 2, Box 48 Scott City, Mo. 67871		8. TELEPHONE AREA CODE AND NUMBER 316-872-2807	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation		10. STATE OF INCORPORATION New Mexico		11. DATE OF INCORPORATION 5/1/75	
12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers: Kenneth L. Soetger, President Seed Research Route 2, Box 48 Scott City, Mo. 67871					
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:					
<input checked="" type="checkbox"/> 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)					
<input checked="" type="checkbox"/> 13B. Exhibit B, Novelty Statement.					
<input checked="" type="checkbox"/> 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)					
<input checked="" type="checkbox"/> 13D. Exhibit D, Additional Description of the Variety.					
14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? (See Section 83(a). (If "Yes," answer 14B and 14C below.) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
14B. Does the applicant(s) specify that this variety be limited as to number of generations? 9/24/81 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		14C. If "Yes," to 14B, how many generations of production beyond breeder seed? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED			
15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
16. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act. Not foreign applications filed. 8/9/24/81 Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties. 2/25/81 (DATE) Kenneth L. Soetger (SIGNATURE OF APPLICANT)					

8100074

13 A. Origin & Breeding History of Citation

Parentage: Scout X Sturdy

A single plant selection was made in the F3 generation. Original seed stock of Citation was obtained by bulking four 12' rows that were grown from the single plant selection.

From this preliminary increase sufficient seed was obtained to start tests and evaluation.

Seed classes to be produced beyond breeders seed are foundation, registered, and certified.

No particular requirements are necessary to maintain the purity of Citation besides using a clean drill for seeding, roguing out any variants, and a clean combine for harvesting.

Citation is stable for such practical agronomic characteristics as heading, maturity, height, and glume color. It is less variable than Scout when grown under the same conditions.

Foundation, registered, and certified seed are to be grown according to Kansas Crop Improvement requirements.

Roguing is used to remove variants. ~~Brown chaff variants should not exceed one per 12,000 plants.~~

1 per 3,000 brown chaff type variants

1 per 3,000 tall variants

1 per 3,000 plants with a black overlay on straw chaff. The condition may be more severe when grown on light calcareous soils.

9/08/82

13B Most similar variety to Citation is 4555

4555	Citation
tendency for more sterile basal florets 1.7 per head ave.	sterile basal florets .9 per head
short brush, not collared	brush mid long, slightly collared
fusiform head	strap head
glumes long and wide shoulder oblique	glumes long and narrow elevated shoulder

Citation

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-6
(2-15-73)UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782EXHIBIT C
(Wheat)OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (TRITICUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S) <i>Seed Research</i>	FOR OFFICIAL USE ONLY
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) <i>Route 2, Box 48 Scott City, Kansas 67871</i>	PVPO NUMBER <i>8100074</i>
	VARIETY NAME OR TEMPORARY DESIGNATION <i>CITATION</i>

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in first box (e.g., 089) or 09) when number is either 99 or less or 9 or less.

1. KIND:

☒ 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:

☒ 1 = SPRING 2 = WINTER 3 = OTHER (Specify) _____ ☒ 1 = SOFT 3 = OTHER (Specify) _____
☒ 2 = HARD

☒ 1 = WHITE 2 = RED 3 = OTHER (Specify) _____

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

 FIRST FLOWERING LAST FLOWERING

4. MATURITY (50% Flowering):

0 NO. OF DAYS EARLIER THAN ☒ 1 = ARTHUR 2 = SCOUT 3 = CHRIS
0 NO. OF DAYS LATER THAN ☒ 4 = LEMHI 5 = NUGAINES 6 = LEEDS
7 = Triumph

5. PLANT HEIGHT (From soil level to top of head):

73 CM. HIGH
 CM. TALLER THAN ☐ 1 = ARTHUR 2 = SCOUT 3 = CHRIS
19 CM. SHORTER THAN ☒ 4 = LEMHI 5 = NUGAINES 6 = LEEDS

6. PLANT COLOR AT BOOTING (See reverse):

☐ 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTER COLOR:

☒ 1 = YELLOW 2 = PURPLE

8. STEM:

☐ Anthocyanin: 1 = ABSENT 2 = PRESENT ☐ Waxy bloom: 1 = ABSENT 2 = PRESENT
☒ Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT ☒ Internodes: 1 = HOLLOW 2 = SOLID
☒ 4 NO. OF NODES (Originating from node above ground) ☒ 21 CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:

☒ 2 *9/24/81* Anthocyanin: 1 = ABSENT 2 = PRESENT ☐ Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:

☒ 1 *9/24/81* Flag leaf at booting stage: 1 = ERECT 2 = RECURVED ☐ Flag leaf: 1 = NOT TWISTED 2 = TWISTED
☐ 3 = OTHER (Specify) _____ *9/24/81* ☒ Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT
 MM. LEAF WIDTH (First leaf below flag leaf) CM. LEAF LENGTH (First leaf below flag leaf)

FORM GR-470-6 (REVERSE)

11. HEAD:

☒ 2 Density: 1 = LAX 2 = DENSE *Mid*

☒ 2 Shape *5/11/81 E.B.*

PERING 2 = STRAP 3 = CLAVATE
HER (Specify)

☒ 4 Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

☒ 7 Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED
5 = BROWN 6 = BLACK 7 = OTHER (Specify): *whitish yellow*

☐ 7 CM. LENGTH

☐ 12 MM. WIDTH

12. GLUMES AT MATURITY:

☒ 3 Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.)
3 = LONG (CA. 9 mm.)

☐ 1 Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.)
3 = WIDE (CA. 4 mm.)

☒ 1 Glabrous 2 Pubescent

☒ 5 Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED
4 = SQUARE 5 = ELEVATED 6 = APICULATE

☒ 3 Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

☒ 1 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

☐ 1 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

☒ 1 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

☒ 3 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

☐ 1 Check: 1 = ROUNDED 2 = ANGULAR

☒ 2 Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

☒ 2 Brush: 1 = NOT COLLARED 2 = *slightly* COLLARED

☐ Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN
4 = BROWN 5 = BLACK

☒ 3 Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify)

☐ 6 MM. LENGTH

☐ 3 MM. WIDTH

☐ GM. PER 1000 SEEDS

17. SEED CREASE:

☒ 2 Width: 1 = 60% OR LESS OF KERNEL 'WINOKA'
2 = 80% OR LESS OF KERNEL 'CHRIS'
3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

9/24/81
☐ 1 Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT'
2 = 35% OR LESS OF KERNEL 'CHRIS'
3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☒ 2 STEM RUST (Races) *prevallant in Ho.*

☒ 2 LEAF RUST (Races) *prevallant in Ho.*

☐ 0 STRIPE RUST (Races)

☐ 0 LOOSE SMUT

☐ 0 POWDERY MILDEW

☐ 0 BUNT

☐ 0 OTHER (Specify)

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 0 SAWFLY

☐ 0 APHID (Bydv.)

☐ 0 GREEN BUG

☐ 0 CEREAL LEAF BEETLE

☐ 0 OTHER (Specify)

HESSIAN FLY
RACES:

☐ GP

☐ A

☐ B

☐ C

☐ D

☐ E

☐ F

☐ G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	<i>4555</i>	Seed size	
Leaf size	<i>4555</i>	Seed shape	
Leaf color	<i>4555</i>	Coleoptile elongation	<i>4555</i>
Leaf carriage		Seedling pigmentation	<i>4555</i>

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.W. Briggie and L. P. Reitz, 1963, *Classification of Triticum Species and Wheat Varieties Grown in the United States*, Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, *A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity*, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

13 D. Botanical Characteristics of Citation

Plant Characteristics:

1. Maturity: very early, equal to Triumph 64
2. Height: semi dwarf 73 cm with Scout 66 102 cm
3. Habit of Growth: winter (prostrate)

Stem Characteristics:

1. Color: whitish yellow
2. Strength: good
3. Hollow straw

Spike Characteristics:

1. Awns: present (some up to 110 mm)
2. Shape: strap
3. Density: mid dense
4. Position: erect to inclined
5. Shattering: non shattering
6. Multi Seed Tendency

Glume Characteristics:

1. Color: whitish yellow
2. Length: long
3. Width: narrow
4. Shoulder: elevated
5. Beak: mid wide

Kernel Characteristics:

1. Color: red
2. Length: 5.5 mm
3. Width: 3 mm
4. Germ: ~~large~~ mid sized 9/24/81 S
5. Texture: hard
6. Shape: elliptical
7. Crease: ~~wide~~ mid wide 9/24/81
8. Brush: mid long & slightly collared

Quality Characteristics:

The quality of Citation is usually very good for white pan breed without blending. The protein quality is good but the quantity is only average.

(see attached sheet)

SOME COMPARISONS OF PROPOSED VARIETIES AND TWO CHECKS

VARIETY	TESTING NO	SEASON	DRYLAND HEIGHT	GLUME COLOR
FRONTIERSMAN	5471	= Triumph	83 cm	BROWN
ENCORE	5417	= Triumph	88 cm	BROWN
CITATION	4635	= Triumph	73 cm	WHITISH YELLOW
BRAWNY	4714	Scout- 2 days	85 cm	BROWN
TRIUMPH 64	----	VERY EARLY	93 cm	WHITISH YELLOW
SCOUT 66	----	EARLY MIDSEASON	122 cm	WHITISH YELLOW

9/24/81
 Exhibit C shows typical
 difference. This different year
 2

VARIETY	SOIL BORNE MOSAIC RES (1-5)	LODGING (1-5)	GENETICALLY HIGH PROTEIN	LEAF RUST RES. (1-5)	STEM RUST RES. (1-5)
FRONTIERSMAN	4	4	YES	5	5
ENCORE	4	4	YES	5	5
CITATION	2	4	NO	4	5
BRAWNY	-	4	YES	4	5
TRIUMPH 64	3	2	NO	2	4
SCOUT 66	2	2	NO	3	4

On all the 1-5 ratings the higher number is best rating.

Triumph was one of the more important wheats in the Haven, Kansas community when we started using that area as a test site.

Scout 66 has been used as a check variety because of its widespread use.

QUALITY EVALUATION FROM KARL FINNEY
 USDA GRAIN MARKETING RESEARCH CENTER (MIXOGRAM)
 SCOTT COUNTY 1980 SAMPLES

VARIETY NAME	SAMPLE NO	WT/BU LB	FLOUR YIELD %
SCOUT 66 (CHECK)	80-2401	62.5	72.3
NEWTON (CHECK)	80-2402	62.3	70.3
FRONTIERSMAN (5471)	80-2440	62.2	71.2
ENCORE (5417)	80-2441	62.4	69.3
BRAWNY (4714)	80-2435	61.8	70.4
CITATION (4685)	80-2442	61.6	69.6

VARIETY NAME	FLOUR PROTEIN % (14% MOISTURE)	ABSORPTION %	MIXING TIME
SCOUT 66 (CHECK)	12.9	63.0	3 MIN.
NEWTON (CHECK)	11.8	61.3	3.75 MIN.
FRONTIERSMAN (5471)	15.0	63.0	3 MIN.
ENCORE (5417)	16.5	66.0	2 MIN.
BRAWNY (4714)	15.8	65.1	5 MIN.
CITATION (4685)	11.7	60.5	3.75 MIN.

RESULTS OF SOME REPLICATED TESTS IN KANSAS

VARIETY	1980	1980	1980	1980	1979
	PARSONS BU/A	HUTCH BU/A	SC IRR BU/A	SC IRR BU/A	SC IRR BU/A
SCOUT 66	48	34	83.5	83.9	72.0
TRIUMPH 64	52	40	----	30.7	----
NEWTON	55	39	----	94.7	----
5471 (FRONTIERSMAN)	55	43	91.0	90.1	----
5417 (ENCORE)	--	--	91.0	93.6	----
4685 (CITATION)	58	43	90.2	----	71.5
4714 (BRAWNY)	--	--	97.4	95.8	72.2

VARIETY	1979	1978	1978	1979	1978
	SC IRR BU/A	SC BU/A	SC % OF SCOUT 66	HAVEN DRYLAND BU/A	HAVEN DRYLAND BU/A
SCOUT 66	64.8	53.3	100	44.9	34.0
TRIUMPH 64	----	----	---	46.9	38.1
NEWTON	----	----	---	----	44.7
5471 (FRONTIERSMAN)	56.5*	----	111.9	50.3	----
5417 (ENCORE)	51.7*	----	117.5	48.9	----
4685 (CITATION)	----	53.5	---	55.8	53.9
4714 (BRAWNY)	----	62.2	---	----	----

* very early season & were damaged by May freeze

Triumph was one of the more important wheats in the Haven, Kansas community when we started using that area of Reno County as a test site.

Scout 66 has been used as a check variety in our plots because of its wide spread use.

CEREAL TECHNOLOGISTS

1435 Clay Street

No. Kansas City, Mo. 64116

P. O. Box 7498

SEED RESEARCH, INC. 0739804
 Route 2, Box 48
 Scott City, KS 67871

Report for

Doty
 Laboratories
 INCORPORATED

TELEPHONE (816) 471-8580

James W. Doty — Director

Date October 28, 1980

Laboratory No. (1845) 1960

CHEMICAL ANALYSES AND BAKING REPORT

IDENTITY	STANDARD	#4685, L 28020	
ASH		0.448%	
PROTEIN (Nx5.7)		12.52%	
MOISTURE		14.10%	
FLOUR COLOR		95 C Y	
ABSORPTION		65.5%	
MIXING		SL.Long	
FERMENTATION		Normal	
LOAF VOLUME		755cc (Very good)	
CRUST CHARACTER		Smooth	
CRUMB COLOR		95 C Y	
GRAIN AND TEXTURE		Sl. Open - Sl. Harsh	
GASSING POWER			
MALTOSE		Adjusted to proper level	
FALLING NUMBER		293	

B—Bright, C—Creamy, CL—Close, D—Dull, G—Gray, O—Open, V—Very, Y—Yellow, SL—Slightly
 Reported on a 14% Moisture Basis

Remarks—

ARINOGRAPH CURVE

MIXING PEAK—

MIXING TOLERANCE—

ABSORPTION—

M.T.I. 40

VALORIMETER 77

10 Min.

10 Min.

62.5%

V. Selander
 CHEMIST